H

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,577	02/11/2002	David W. Brown	P214062	6584

7590 06/15/2004

MICHAEL R. SCHACHT
Suite 202
2801 Meridian Street
Bellingham, WA 98225-2412

EXAMINER	
VON BUHR, MARIA N	

ART UNIT	PAPER NUMBER
2125	

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/074,577	BROWN ET AL.	
	Examiner	Art Unit	
	Maria N. Von Buhr	2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *2/11/02, 4/2/02, 5/1/02 & 3/29/04*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/2/02 & 3/29/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-11 are pending in this application.

2. Applicant's claim for domestic priority under 35 U.S.C. §119(e) is acknowledged.

3. Examiner acknowledges receipt of Applicant's information disclosure statements, received April 02, 2002 and March 29, 2004, with accompanying reference copies, which have been taken into consideration for this Office action.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. §102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by Applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by Applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-11 are rejected under 35 U.S.C. §102(e) as being clearly anticipated by Mason et al. (U.S. Patent No. 6,678,713; newly cited), which discloses "use of real time machine control software integrating both event based mode and task based components. In particular, a collection of constructs have been created that allow machine control applications to be expressed in event based terms and the event based constructs to be seamlessly integrated with task based constructs" (the abstract), wherein "the Machine Control Runtime provides the Event and ReactiveTask constructs to enable applications to realize state machines directly in code. The Machine Control Runtime defines a number of Event objects that provide notification of various external occurrences that are of interest to applications. Applications may also create Event objects to provide internal notification of situation and state information to other applications. Anyone who wishes to obtain notification of an Event can attach

themselves to the Event object (get themselves put on the notification list for the Event). When the Event occurs, the applications get a callback from the system, letting them know that the Event has occurred. State machines are implemented by the ReactiveTask construct. A ReactiveTask is an object that responds to Event occurrences. When created, the ReactiveTask is attached to the set of Events that it is interested in. When any of these Events occur, the system performs a callback to the HandleMessage( ) method of the ReactiveTask, with a parameter to indicate the Event whose occurrence triggered the ReactiveTask execution" (col. 7, lines 30-51). Since this disclosure is in relation to control of machining, the applications that provide responses to events (i.e.; the ReactiveTask) are inherently "motion control commands," as instantly claimed.

6. Claims 1-11 are rejected under 35 U.S.C. §102(b) as being clearly anticipated by "A Motion Control System with Event-driven Motion-module Switching Mechanism for Robotic Manipulators," by Katayama et al. (cited by Applicant), which discloses "an event-driven motion-module switching mechanism. This mechanism can modify a reference input in real-time and can, for each event, select a previously prepared motion-module according to sensor information. This motion-compensating mechanism is effective in robot tasks with uncertainties. This highly modular and extendable control system may be useful for various robot tasks such as machining and assembling" (the abstract). "A conventional robot controller generally consists of a high-level planner and a servo controller. The high- level planner running off-line, interprets and executes the programmed instructions and generates the reference. The servo controller running in real-time controls the actuator and makes the robot follow the reference signal from the high-level planner. On the other hand, in the MSM, the function generating the reaction needs real-time processing, and as shown in Figure 1, a real-time reference modifier (RRM) is inserted between the high-level planner and the servo controller. The reaction is generated as a result of the RRM using sensor information to modify the ideal reference signal from the high-level planner" (see, at least, page 321).

7. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. Applicant is advised to carefully review the cited art, as evidence of the state of the art, in preparation for responding to this Office action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria N. Von Buhr whose telephone number is 703-305-3837. The examiner can normally be reached on M-F (9am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 703-308-0538. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Maria N. Von Buhr
Primary Patent Examiner
Art Unit 2125

MNVB
06/10/04